

IN THE CLAIMS:

Claims 1-21 (Canceled).

Claims 22- 41 (Canceled)

Please enter new claims 42-62 as follows:

42. (New) A method for bonding an integrated circuit to a substrate using heat without deforming an adjacent part of said substrate having a color filter bonded thereto and a polarizer bonded onto a face of said color filter opposite said substrate, said substrate comprising an epoxy resin reinforced with fiberglass, said method comprising the steps of:

positioning a face of said integrated circuit adjacent to a face of said substrate with a thermosetting resin between said integrated circuit and said substrate;

supporting an opposite face of said substrate;

positioning a face of a resilient sheet adjacent to an opposite face of said integrated circuit;

positioning a block against an opposite face of said resilient sheet and pressing said block against said resilient sheet to force said integrated circuit toward said substrate;

heating said block to heat said opposite face of said integrated circuit;

applying heat to said opposite face of said substrate concentrated in a region opposite said integrated circuit by irradiating said substrate with near infrared light while avoiding direct heating of said substrate peripheral of said region opposite said color filter and said polarizer, some energy of said light being absorbed by said substrate and some energy of said light passing through said substrate to said resin; and

during the steps of heating said block and applying heat to said opposite face of said substrate, cooling a portion of said resilient sheet peripheral to said integrated circuit adjacent to said color filter and said polarizer to reduce indirect heating of said color filter and said polarizer from said block via said resilient sheet.

43. (New) A method as set forth in claim 42 wherein said cooling step comprises the step of blowing air against said portion of said resilient sheet peripheral to said integrated circuit adjacent to said color filter and said polarizer.
44. (New) A method as set forth in claim 43 wherein said step of blowing said air comprises the step of blowing said air against a surface of said resilient sheet adjacent to said block.
45. (New) A method as set forth in claim 42 wherein said substrate also has another polarizer bonded onto said opposite face of said substrate adjacent to said region of said substrate opposite the first said polarizer; and during the steps of heating said block and applying heat to said opposite face of said substrate, cooling said other polarizer.
46. (New) A method as set forth in claim 45 wherein said other polarizer is positioned adjacent to a heat sink, and the step of cooling said other polarizer comprises the steps of blowing air against said heat sink.
47. (New) A method as set forth in claim 46 wherein said heat sink has one plate adjacent to said other polarizer, and another plate angled relative to said one plate to shield said plate from heat applied in the step of heating said region of said substrate.
48. (New) A method as set forth in claim 46 wherein after the steps of heating said block and applying heat to said opposite face of said substrate, further comprising the step of cooling said block.
49. (New) A method as set forth in claim 48 wherein the step of cooling said block comprises the step of flowing a cooling liquid through an opening in said block.

50. (New) A method as set forth in claim 42 wherein the step of supporting an opposite face of said substrate comprises the step of supporting said opposite face of said substrate with another block, and after the steps of heating the first said block and applying heat to said opposite face of said substrate, further comprising the step of cooling said other block.

51. (New) A method as set forth in claim 50 wherein the step of cooling said other block comprises the step of flowing a cooling liquid through an opening in said other block.

52. (New) An apparatus for bonding an integrated circuit to a substrate using heat without deforming an adjacent part of said substrate having a color filter bonded thereto and a polarizer bonded onto a face of said color filter opposite said substrate, a face of said integrated circuit being positioned adjacent to a face of said substrate with a thermosetting resin between said integrated circuit and said substrate; said apparatus comprising:

a support for an opposite face of said substrate;

a face of a resilient sheet positioned adjacent to an opposite face of said integrated circuit;

a block positioned against an opposite face of said resilient sheet and means for pressing said block against said resilient sheet to force said integrated circuit toward said substrate;

means for heating said block to heat said opposite face of said integrated circuit;

means for applying heat to said opposite face of said substrate concentrated in a region opposite said integrated circuit by irradiating said substrate with near infrared light while avoiding direct heating of said substrate peripheral of said region opposite said color filter and said polarizer, some energy of said light being absorbed by said substrate and some energy of said light passing through said substrate to said resin; and

means, active during the heating of said block and applying of heat to said opposite face of said substrate, for cooling a portion of said resilient sheet peripheral to said integrated circuit adjacent to said color filter and said polarizer to reduce indirect heating of said color filter and said polarizer from said block via said resilient sheet.

53. (New) An apparatus as set forth in claim 52 wherein said means for cooling comprises a blower positioned for blowing air against said portion of said resilient sheet peripheral to said integrated circuit adjacent to said color filter and said polarizer.

54. (New) An apparatus as set forth in claim 53 wherein said blower is positioned to blow said air against a surface of said resilient sheet adjacent to said block.
55. (New) An apparatus as set forth in claim 52 wherein said substrate also has another polarizer bonded onto said opposite face of said substrate adjacent to said region of said substrate opposite the first said polarizer; and further comprising means, active during the heating of said block and applying of heat to said opposite face of said substrate, for cooling said other polarizer.
56. (New) An apparatus as set forth in claim 55 wherein said other polarizer is positioned adjacent to a heat sink, and said means for cooling said other polarizer comprises a blower positioned for blowing air against said heat sink.
57. (New) An apparatus as set forth in claim 56 wherein said heat sink has one plate adjacent to said other polarizer, and another plate angled relative to said one plate to shield said plate from heat applied during the heating of said region of said substrate.
58. (New) An apparatus as set forth in claim 56 further comprising means, active after the means for heating said block ceases heating said block and said means for applying heat to said opposite face of said substrate ceases to apply heat to said opposite face of said substrate, for cooling said block.
59. (New) An apparatus as set forth in claim 58 wherein said means for cooling said block comprises means for flowing a cooling liquid through an opening in said block.
60. (New) An apparatus as set forth in claim 52 wherein said support for an opposite face of said substrate comprises another block, and means, active after said means for heating the first said block ceases to heat said first said block and said means for applying heat to said opposite face of said substrate ceases to heat said opposite face of said substrate, for cooling said other block.

61. (New) An apparatus as set forth in claim 52 wherein said substrate comprises an epoxy resin reinforced with fiberglass.

62. (New) A method of forming a bonded assembly, said method comprising the steps of:

positioning an IC chip adjacent to a substrate with a thermosetting adhesive between said IC chip and said substrate to adhere said IC chip to said substrate, said substrate comprising an epoxy resin reinforced with fiberglass; and

irradiating said substrate with near infrared light toward said IC chip such that some energy of said light is absorbed by said substrate and some energy of said light passes through said substrate to said adhesive to substantially cure said adhesive; and

wherein the positioning step is performed by positioning a face of said IC chip adjacent to a face of said substrate with said thermosetting adhesive between said face of said IC chip and said face of said substrate, and further comprising the steps of:

supporting an opposite face of said substrate;

positioning a face of a resilient sheet adjacent to an opposite face of said IC chip;

positioning a block against an opposite face of said resilient sheet and pressing said block against said resilient sheet to force said IC chip toward said substrate;

heating said block to heat said opposite face of said IC chip; and wherein the step of irradiating said substrate is performed by applying heat to said opposite face of said substrate concentrated in a region opposite said IC chip, while avoiding direct heating of said substrate peripheral of said region opposite said color filter and said polarizer; and

during the steps of heating said block and applying heat to said opposite face of said substrate, cooling a portion of said resilient sheet peripheral to said IC chip adjacent to said color

filter and said polarizer to reduce indirect heating of said color filter and said polarizer from said block via said resilient sheet.